A non-consequentialist alternative to economics

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CLIMATE CHANGE: GLOBAL RISKS, CHALLENGES AND DECISIONS

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Box 10.1

A non-consequentialist alternative to economics

DOMINIC ROSER

Do the benefits of a given climate policy exceed its costs? The answer to this question is a key criterion for many economic assessments of climate policy. However, as benefits and costs of climate policy do not fall on the same persons/generations, the relevance of this criterion is put into question by non-consequentialist theories. Non-consequentialist theories resist adding up good and bad consequences of a policy across persons/generations as if these constituted one single large agent. The non-consequentialist's distinctive focus on rights, duties and justice makes the concerns of future generations relevant for present-day policy choice in an entirely different manner than the present generation's own concerns. As far as future generations are concerned, the primary issue for the present generation is its duty to lift or keep them above a certain morally relevant threshold. The threshold owed to future generations could be specified in various ways, for example in terms of human rights or basic needs, or based on, say, an egalitarian theory of intergenerational distributive justice. The primacy of this duty towards future generations makes the outlook of non-consequentialism both more and less demanding than the consequentialist approach of economics. It is more demanding because measures to ensure that future generations achieve the morally relevant threshold must be pursued even if the costs of doing so exceed the benefits. It is also less demanding because the present generation has no duty to pursue measures that benefit future generations beyond the owed threshold even if the potential benefits should far outweigh the corresponding costs.

Note that in a non-consequentialist framework, the discount rate loses much of its relevance. When economics trades off present against future costs and benefits it must assign a certain weight – represented by a discount rate – to future costs and benefits (Chapter 12). It is a hotly debated issue whether to ascribe equal or lesser weight to values accruing in the future. A non-consequentialist framework, in contrast, argues that the very idea of weighing up present and future values (which makes the determination of a discount rate necessary in the first place) is inappropriate. Costs to the present generation for engaging in climate policy are not justified by being outweighed by discounted benefits for future generations but rather by their necessity for achieving the relevant threshold.

Assessing climate policy according to non-consequentialist standards has implications for our perspective on scientific uncertainty. Scientific uncertainty is relevant because many people seem to share a certain precautionary intuition that under conditions of uncertainty it is 'better to be safe than sorry' or, to give a more precise benchmark in terms of an example, that a forecast for a temperature increase of 1–6 °C is more worrisome than an (imaginary) precise forecast of a 3.5 °C increase. It is unclear, however, what kind of rationale could justify this precautionary intuition. One important suggestion – the rationale on which the consequentialism of economics relies – is the idea that non-linear relationships between instrumental and intrinsic values yield a reason for risk-aversion. If, for example, well-being losses (i.e. an intrinsic value) rise disproportionately with temperature increase (i.e. an instrumental value) and if we ought to ultimately be concerned with *expected* well-being, then there is a sound rationale for being risk-averse with respect to temperature increase, i.e. for being more worried about a 1–6 °C forecast than about a 3.5 °C forecast.

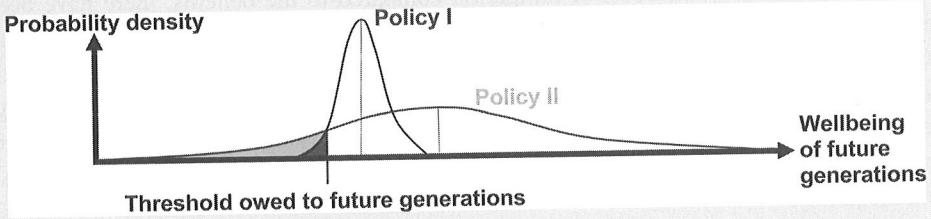

Figure 10.3 Comparison of policies with different degrees of uncertainty. Source: D. Roser.

This rationale, however, does not do full justice to our precautionary intuition, not least because it can only justify the relevance of uncertainty in instrumental values. Non-consequentialism can go further at this point. If the present generation has a duty to lift future generations above a certain threshold, then the main relevance of larger uncertainty lies in the potentially larger probability of future generations falling below this threshold. If we assume, for example, that the relevant threshold is a well-being level owed to future generations, then non-consequentialism evaluates a given climate policy not by the expected well-being it yields for future generations but primarily by its downside risk; that is, by the probability of falling below the threshold and by the expected (and possibly also maximal) well-being shortfall in case of actually falling below the threshold. Graphically, Policy II (Figure 10.3) is evaluated worse than Policy I because the light grey plus dark grey area is larger and extends further below the threshold than the dark grey area alone.

Climate inaction is sometimes justified on the basis of the (plausible) expectation that future generations might be better off than we are. Expected future well-being, however, is not the decisive issue for policy choice. Policy II is judged worse than Policy I even though it exhibits a larger expected well-being for future generations than Policy I. What matters is the size of the risk of falling below the owed threshold.

Other lines of argument, however, maintain that traditional economic analyses, no matter what discount rate is used, cannot capture ethical and justice concerns as they are based on crude economic utilitarianism (Barker *et al.*, 2009). The fundamental problem is that climate change is inherently unjust, as the more affluent people and societies can avoid many of the impacts of climate change through means such as private protection, while the poor and the vulnerable will suffer many serious and unavoidable impacts. This is particularly true for human health, and will be even more so for future generations. Today's high-emitting societies face lesser health risks than will future generations (Box 5.3). Thus, climate change will likely widen the gap between the well-being of the wealthy and the poor into the future. The concept of justice, therefore, asserts that the need for urgent and effective mitigation is not just a technological or economic issue, but is also a profoundly ethical issue that touches on the fundamental values that societies hold.

While there have been many theoretical and philosophical discourses on the obligations of our generation to future generations with respect to climate change, and even more